ABSTRACT OF THE DISCLOSURE

A monolithic surface mount optoelectronic device includes a transparent epoxy layer and a glass layer, which cover the active surface of a light emitting diode junction. The diode junction preferably outputs a characteristic wavelength of about 450 nm (blue light). The junction is fabricated by growing a P+ layer, gallium nitride layer, and a silicon gallium nitride buffer layer on a silicon substrate. The buffer layer, which is preferably non-conductive, is made conductive by the addition of a metallic shorting ring connecting the gallium nitride layer through a via in the silicon substrate to one of two surface mount contacts. A conductive beam connects the P+ layer to the remaining surface mount contact through another via in the silicon substrate. An isolation trench separates the vias in the substrate.

147459_1